

CLAIMS

1. Transfer device (10), particularly for transferring preforms for the manufacture of receptacles by blow-moulding, comprising a series of plates (12A, 12B) to which are attached  
5 means (14) of supporting preforms, the plates (12A, 12B) being coupled one after the other in an endless movable curvilinear chain by means of articulations (16) capable of allowing the curvilinearity of the movable chain and simultaneously the rotation of the plates (12A, 12B) about a horizontal axis (A1) to allow the  
10 preforms to be turned upside down and/or set upright, characterized in that each plate (12A, 12B) is made in a single piece by moulding.

2. Device (10) according to the preceding claim, characterized in that each plate (12A, 12B) generally has the  
15 shape of a chain link and comprises a top horizontal plate (18) and a bottom horizontal plate (20) that are connected by at least one substantially vertical upright (22), in that the means of support (14) comprise, for each plate (12A, 12B), two tubular bodies (38) that are attached to the plate (12A, 12B), either side  
20 of the upright (22), and that extend vertically through associated holes (34, 36) formed in the two horizontal plates (18, 20), each tubular body (38) being designed to receive internally a vertical rod (40) for supporting a preform, and in that each plate (12A, 12B), called the first plate (12A), is connected to an adjacent  
25 plate, called the second plate (12B), via an articulation (16) comprising a first socket (44) mounted so as to rotate about a tubular body (38) of the first plate (12A) and a second socket (46) mounted so as to rotate about a tubular body (38) of the second plate (12B), the two sockets (44, 46) being mounted so as to pivot  
30 one relative to the other about a substantially horizontal pivot axis (A1).

3. Device (10) according to the preceding claim, characterized in that the vertical upright (22) of each plate (12A, 12B) comprises at least one transverse shaft (30) that is

furnished, at its free end, with an idler wheel (32) designed to interact with a fixed cam, particularly in order to control the turning upside down and/or the setting upright of the preforms.

4. Device (10) according to the preceding claim,  
5 characterized in that each plate (12A, 12B) is moulded onto the associated transverse shaft (30) that forms an insert.

5. Device (10) according to the preceding claim,  
characterized in that the sections of the transverse shaft (30) that  
are overmoulded comprise raised elements or cavities.

10 6. Device (10) according to Claim 3, characterized in that  
the transverse shaft (30) is force-fitted into the associated plate  
(12A, 12B).

15 7. Device (10) according to the preceding claim,  
characterized in that the sections of the shaft (30) that are  
received in the plate (12A, 12B) comprise grooves made by  
knurling.

8. Device (10) according to any one of Claims 2 to 7,  
characterized in that each socket (44, 46) is made in a single  
piece by moulding.

20 9. Device (10) according to the preceding claim,  
characterized in that each socket (44, 46) consists of two coaxial  
rings (52, 54) that are mounted so as to rotate on the associated  
tubular body (38) and that are moulded with a circumferential  
portion of axial wall (56).

25 10. Device (10) according to the preceding claim,  
characterized in that the portion of axial wall (56) of the first  
socket (44) is furnished with a bearing (48) and in that the portion  
of axial wall (56) of the second socket (46) is assembled onto the  
portion of axial wall (56) of the first socket (44) by means of a  
30 horizontal rivet (50) which extends axially in the bearing (48) in  
order to form the pivot axis (A1).

11. Device (10) according to any one of Claims 8 to 10,  
characterized in that each socket (44, 46) is mounted so as to

rotate directly on the associated tubular body (38), with no intermediate element of radial interposition.

12. Device (10) according to the preceding claim, characterized in that each socket (44, 46) is made of self-lubricating material such as brass.

13. Device (10) according to any one of the preceding claims, characterized in that each plate (12A, 12B) and/or each socket (44, 46) is pressure injection moulded.

14. Device (10) according to any one of the preceding claims, characterized in that each plate (12A, 12B) and/or each socket (44, 46) is made of Zamac.

15. Device (10) according to any one of Claims 1 to 13, characterized in that each plate (12A, 12B) and/or each socket (44, 46) is made of copper alloy.